



<110> HAYSTEAD, TIMOTHY A

<120> SMOOTH MUSCLE MYOSIN PHOSPHATASE ASSOCIATED KINASE

<130> 1579-647

<140> 10/083,641

<141> 2002-02-27

<150> 60/271,436

<151> 2001-02-27

<160> 17

<170> PatentIn Ver. 2.1

<210> 1

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Endogenous kinase copurifies with SMPP-1M

<400> 1

Lys Lys Lys Arg Gln Ser Arg Arg Ser Thr Gln Gly Val Thr Leu
1 5 10 15

<210> 2

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: human pDAPK3

<400> 2

Met Gly Glu Glu Leu Gly Ser Gly Gln Phe Ala Ile Val
1 5 10

<210> 3

<211> 320

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: ZIP Kinase

<400> 3

Met Ser Thr Phe Arg Gln Glu Asp Val Glu Asp His Tyr Glu Met Gly
1 5 10 15

Glu Glu Leu Gly Ser Gly Gln Phe Ala Ile Val Arg Lys Cys Arg Gln
20 25 30

Lys Gly Thr Gly Lys Glu Tyr Ala Ala Lys Phe Ile Lys Lys Arg Arg
35 40 45

Leu Pro Ser Ser Arg Arg Gly Val Ser Arg Glu Glu Ile Glu Arg Glu
50 55 60

Val Asn Ile Leu Arg Glu Ile Arg His Pro Asn Ile Ile Thr Leu His
65 70 75 80

Asp Ile Phe Glu Asn Lys Thr Asp Val Val Leu Ile Leu Glu Leu Val
85 90 95

Ser Gly Gly Glu Leu Phe Asp Phe Leu Ala Glu Lys Glu Ser Leu Thr
100 105 110

Glu Asp Glu Ala Thr Gln Phe Leu Lys Gln Ile Leu Asp Gly Val His
115 120 125

Tyr Leu His Ser Lys Arg Ile Ala His Phe Asp Leu Lys Pro Glu Asn
130 135 140

Ile Met Leu Leu Asp Lys Asn Val Pro Asn Pro Arg Ile Lys Leu Ile
145 150 155 160

Asp Phe Gly Ile Ala His Lys Ile Glu Ala Gly Asn Glu Phe Lys Asn
165 170 175

Ile Phe Gly Thr Pro Glu Phe Val Ala Pro Glu Ile Val Asn Tyr Glu
180 185 190

Pro Leu Gly Leu Glu Ala Asp Met Trp Ser Ile Gly Val Ile Thr Tyr
195 200 205

Ile Leu Leu Ser Gly Ala Ser Pro Phe Leu Gly Glu Thr Lys Gln Glu
210 215 220

Thr Leu Thr Asn Ile Ser Ala Val Asn Tyr Asp Phe Asp Glu Glu Tyr
225 230 235 240

Phe Ser Ser Thr Ser Glu Leu Ala Lys Asp Phe Ile Arg Arg Leu Leu
245 250 255

Val Lys Asp Pro Lys Arg Arg Met Thr Ile Ala Gln Ser Leu Glu His
260 265 270

Ser Trp Ile Lys Val Arg Arg Glu Asp Gly Ala Arg Lys Pro Glu
275 280 285

Arg Arg Arg Leu Arg Ala Ala Arg Leu Arg Glu Tyr Ser Leu Lys Ser
290 295 300

His Ser Ser Met Pro Arg Asn Thr Ser Tyr Ala Ser Phe Glu Arg Phe
305 310 315 320

<210> 4
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: rat DAP-like kinase

<220>
<221> Unsure
<222> (6), (10)
<223> Xaa can be any amino acid

<400> 4
Met Leu Leu Asp Lys Xaa Ile Phe Xaa Arg Pro Ile Gln
1 5 10

<210> 5
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: D-glycerate dehydrogenase

<220>
<221> Unsure
<222> (8), (10), (11) and (13)
<223> Xaa can be any amino acid

<400> 5
Met Thr Ile Ala Gln Asn Leu Xaa Tyr Xaa Xaa Ile Xaa
1 5 10

<210> 6
<211> 1093
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Putative nucleotide sequence of smooth muscle MYPT-Kinase

<220>
<221> Unsure
<222> (2), (7), (37), (39), (1056), (1081) and (1092)
<223> N can be A, C, G or T

<400> 6
gntatgnata tcggtttaat cggccggagc tcgcccncng ggcagctgga ctccctctca 60
gacctccttc tttctcgccc tcagcacggg attaacacctca cttgactgtt cttgggtccc 120

cggtgccggg ccagcgtcct ctccctcaag gcaatcccc agtgtctgtc atgaggctct 180
ttgggcagtt ctgttgggt gggaaacactg ggaacagatg cacagaggct ggggtacaga 240
gtcctgcctt cctctgggtc tgcagcgtt agctgttcct tcccccacag cggccagtcc 300
gccatcgtc gcaagtgccca gcagaaggccc accggcatgg agtacgcggc caagttcata 360
aagaagcgcc gcctgccgtc cagccggcgc ggtgtgagcc gtgaggagat cgagcgcgag 420
gtgagcatcc tgcgcgagat ccgccacccc aacatcatca cgctgcacga tgtgttcgag 480
aacaagacag atgtgggtct gatcttggag ctgggtccg gccggcaact tttcgacttt 540
ctggctgaga aggatcaactg acagaggatg aggccacgca gttcctcaag cagatcctgg 600
acggtgtcca ctacctgcac tccaaagcga tcgcgcactt tgacctgaag ccggagaaca 660
tcatgttgcg ggacaagcat gcagccagcc cacgcattaa gctcatcgac tttggcatcg 720
cgcacaggat cgaggccggt agcgagttca agaacatctt tgcaacgcca gagttcgtcg 780
tgtaggggca ggtgtgggca ccacccgata gggtagattt tgcaacggcct tggcctgacc 840
tgccctcaaca atccctgtctt ccacagccccc tgagatgtta aactatgaac cacttggctt 900
ggaagctgat atgtggagca tcggcgtcat cacctacatc ctgtgagtgc ctgagatggg 960
caggggcctc agactgtacc tgcttagagcc ccaggatca ggctggcac ctctgcaa 1020
tgcaaacact ggggctgaga gatgtccctg ggaacnctgg atatgcctgg gccccaccaa 1080
ngtaggacca tnc 1093

<210> 7
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Dduced amino acid sequence of rat
aorta smooth muscle MYPT-kinase

<230>
<231> Unsure
<232> (1), (3) and (13)
<233> Xaa can be any amino acid

<400> 7
Xaa Met Xaa Ile Gly Leu Ile Gly Arg Ser Ser Pro Xaa Gly Gln Leu
1 5 10 15

Asp Ser Leu Ser Asp Leu Leu Ser Arg Pro Gln His Gly Ile Asn
20 25 30

Leu Thr

<210> 8
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Dduced amino acid sequence of rat
aorta smooth muscle MYPT-kinase

<400> 8
Leu Phe Leu Gly Pro Arg Cys Arg Ala Ser Val Leu Ser Leu Lys Ala
1 5 10 15

Ile Pro Lys Cys Leu Ser
20

<210> 9
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Dduced amino acid sequence of rat aorta smooth muscle MYPT-kinase

<400> 9
Gly Ser Leu Gly Ser Ser Val Val Val Gly Asn Leu Gly Thr Asp Ala
1 5 10 15

Gln Arg Leu Gly Tyr Arg Val Leu Pro Ser Ser Gly Ser Ala Ala Leu
20 25 30

Ser Cys Ser Phe Pro His Ser Gly Phe Ala Ile Val Arg Lys Cys Lys
35 40 45

Gly Thr Gly Met Glu Tyr Ala Ala Lys Phe Ile Lys Lys Arg Arg Leu
50 55 60

Pro Ser Ser Arg Arg Gly Val Ser Arg Glu Glu Ile Glu Arg Glu Val
65 70 75 80

Ser Ile Leu Arg Glu Ile Arg His Pro Asn Ile Ile Thr Leu His Asp
85 90 95

Val Phe Glu Asn Lys Thr Asp Val Val Leu Ile Leu Glu Leu Val Ser
100 105 110

Gly Gly Glu Leu Phe Asp Phe Leu Ala Glu Lys Asp His
115 120 125

<210> 10
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Dduced amino acid sequence of rat aorta smooth muscle MYPT-kinase

<400> 10
Gln Arg Met Arg Pro Arg Ser Ser Ser Arg Ser Trp Thr Val Ser
1 5 10 15

Thr Thr Cys Thr Pro Ser Ala Ser Arg Thr Leu Thr
20 25

<210> 11
<211> 55
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Dduced amino acid sequence of rat aorta smooth muscle
MYPT-kinase

<400> 11
Ser Arg Arg Thr Ser Cys Cys Trp Thr Ser Met Gln Pro Ala His Ala
1 5 10 15

Leu Ser Ser Ser Thr Leu Ala Ser Arg Thr Gly Ser Arg Pro Val Ala
20 25 30

Ser Ser Arg Thr Ser Leu Ala Arg Gln Ser Ser Ser Val Arg Gly Arg
35 40 45

Cys Gly His His Pro Ile Gly
50 55

<210> 12
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Dduced amino acid sequence of rat aorta smooth muscle
MYPT-kinase

<400> 12
Ile Leu His Gly Leu Gly Leu Thr Cys Leu Asn Asn Pro Val Phe His
1 5 10 15

Ser Pro

<210> 13
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Dduced amino acid sequence of rat aorta smooth muscle
MYPT-kinase

<400> 13
Asp Cys Lys Leu
1

<210> 14
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Deduced amino acid sequence of rat aorta smooth muscle
MYPT-kinase

<400> 14
Thr Thr Trp Leu Gly Ser
1 5

<210> 15
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Deduced amino acid sequence of rat aorta smooth muscle
MYPT-kinase

<400> 15
Tyr Val Glu His Arg Arg His His Leu His Pro Val Ser Ala
1 5 10

<210> 16
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Deduced amino acid sequence of rat aorta smooth muscle
MYPT-kinase

<400> 16
Asp Gly Gln Gly Pro Gln Thr Val Pro Ala Arg Gly Pro Gly Ile Arg
1 5 10 15

Ala Gly Thr Ser Ala Asn Cys Lys His Trp Gly
20 25

<210> 17
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Deduced amino acid sequence of rat aorta smooth muscle
MYPT-kinase

<220>
<221> Unsure
<222> (15), (17)
<223> Xaa can be any amino acid

<400> 17
Glu Met Ser Leu Gly Thr Leu Asp Met Pro Gly Pro His Gln Xaa Arg
1 5 10 15

Thr Xaa